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(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DOEDEE, Antonius, H., F., E. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656

AA Eindhoven (NL). HENDRIX, Machiel, A., M. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). PUTMANS, Janmarinus, C., A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

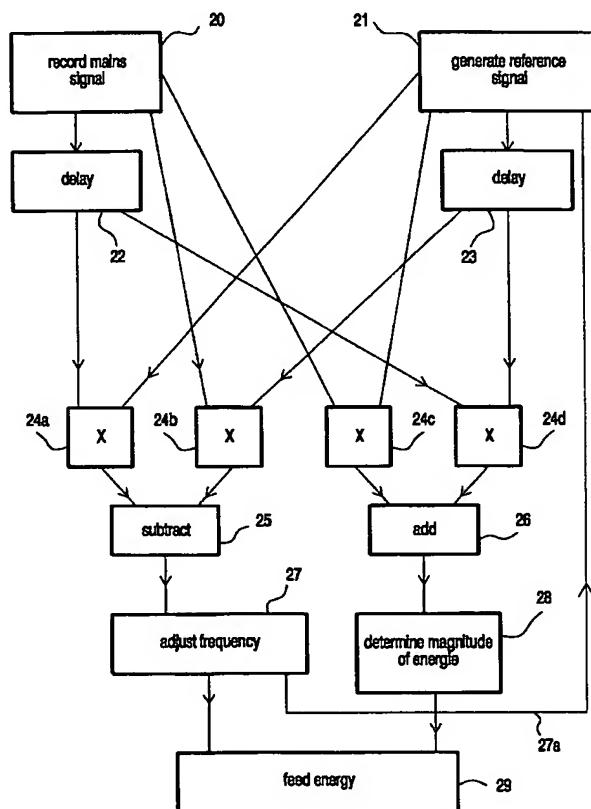
(74) Agent: BOSMA, Rudolphus, H., A.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(54) Title: METHOD AND SYSTEM FOR FEEDING ELECTRICAL ENERGY INTO AN ALTERNATING CURRENT ELECTRICAL MAINS



(57) Abstract: In a method and system for feeding electrical energy into an alternating current electrical mains the mains signal is recorded and a reference signal generated. From the mains signal and the reference signal a delayed mains signal and a delayed reference signal is derived. Then, the mains signal is multiplied by the delayed reference signal and the delayed mains signal is multiplied with the reference signal. By determining a difference between the multiplied signals, a phase difference between the fundamental harmonic frequency of the mains signal and the reference signal can be derived. Making use of the phase difference, the frequency of the reference signal can be adjusted. From the reference signal a synchronization signal for synchronizing a converter is derived, the synchronization signal synchronizing an electrical output alternating current energy of the converter. Thus, energy is fed into the mains by the converter in synchronism with the fundamental harmonic frequency of the mains signal.



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